IN THE CLAIMS:

The following listing of claims will replace all prior versions and listings of claims in the application:

1. (Original) A flow sensor comprising:

a paddle being disposed at least partially in an orifice, a fluid flow directed through the orifice, the paddle being displaced in response to the fluid flow; and

a support member positioning the paddle at least partially in the orifice, the support member including a plurality of strain gauges, the plurality of strain gauges being disposed on only one side of the support member, at least one of the plurality of strain gauges being mechanically stressed in response to the paddle being displaced by the fluid flow.

2. (Original) A flow sensor as defined by Claim 1, wherein the paddle includes a surface area, the surface area of the paddle being adaptable to provide different displacements of the paddle in response to the fluid flow.

3. (Original) A flow sensor as defined by Claim 1, wherein the paddle includes a first surface area, the support member including a second surface area, the first surface area being unequal to the second surface area.

4. (Original) A flow sensor as defined by Claim 1, wherein the paddle does not have any electrical components mounted thereon.

5. (Original) A flow sensor as defined by Claim 1, wherein the plurality of strain gauges is operatively configured in a Wheatstone bridge.

6. (Original) A flow sensor as defined by Claim 1, wherein at least one of the plurality of strain gauges is responsive to at least one of transverse stress and longitudinal stress.

7. (Original) A flow sensor as defined by Claim 1, wherein at least one of the plurality of strain gauges is piezo-resistive.

8. (Original) A method of sensing flow, the method comprising the steps of:

disposing a paddle at least partially in an orifice;

directing a fluid flow through the orifice, the paddle being displaced in response to the fluid flow;

positioning the paddle at least partially in the orifice by a support member, the support member including a plurality of strain gauges; and

disposing the plurality of strain gauges on only one side of the support member, the plurality of strain gauges being mechanically stressed in response to the paddle being displaced by the fluid flow.

9. (Original) A method of sensing flow as defined by Claim 8, further comprising the step of adapting a surface area of the paddle to provide different displacements of the paddle in response to the fluid flow.

10. (Original) A method of sensing flow as defined by Claim 8, further comprising the step of providing a first surface area of the paddle unequal to a second surface area of the support member.

11. (Original) A method of sensing flow as defined by Claim 8, further comprising the step of disposing the plurality of strain gauges exclusively on the support member.

12. (Original) A method of sensing flow as defined by Claim 8, further comprising the step of configuring the plurality of strain gauges operatively in a Wheatstone bridge.

13. (Original) A method of sensing flow as defined by Claim 8, further comprising the step of providing at least one of the plurality of strain gauges as responsive to at least one of transverse stress and longitudinal stress.

14. (Original) A method of sensing flow as defined by Claim 8, further comprising the step of providing at least one of the plurality of strain gauges as a piezo-resistive strain gauge.

15. - 40. (Withdrawn)

41. (Original) A medium sensing device comprising:

a flow device including a first mating portion and a second mating portion, the first mating portion including a first aperture, the second mating portion including a second aperture, the first aperture and the second aperture being at least partially aligned such that the first aperture and the second aperture define a channel through the first and second mating portions when the first and second mating portions are joined together, the channel being able to communicate the medium therethrough; and

a circuit board sandwiched between the first mating portion and the second mating portion, the circuit board including at least one sensor, the at least one sensor being at least partially aligned with the channel, the at least one sensor being able to detect a physical characteristic of the medium flowing through the channel.

42. (Original) A medium sensing device as defined by Claim 41, further comprising:

a paddle disposed at least partially in an orifice, a medium flow directed through the orifice, the paddle being displaced in response to the medium flow; and

a support member positioning the paddle at least partially in the orifice, the support member including a plurality of strain gauges, the plurality of strain gauges being disposed

on only one side of the support member, at least one of the plurality of strain gauges being mechanically stressed in response to the paddle being displaced by the medium flow.

43. (Original) A method of providing a sensor in a medium flow device comprising the steps of:

providing the medium flow device as a first mating portion and a second mating portion, the first mating portion including a first aperture, the second mating portion including a second aperture, the first aperture and the second aperture being at least partially aligned such that the first aperture and the second aperture define a channel through the first and second mating portions when the first and second mating portions are joined together, the channel being able to communicate the medium therethrough; and

sandwiching a circuit board between the first mating portion and the second mating portion, the circuit board including at least one sensor, the at least one sensor being at least partially aligned with the channel, the at least one sensor being able to detect a physical characteristic of the medium flowing through the channel.

44. (Original) A method of providing a sensor in a fluid flow device as defined by Claim 43, further comprising the steps of:

disposing a paddle at least partially in an orifice;

directing a medium flow through the orifice, the paddle being displaced in response to the medium flow;

positioning the paddle at least partially in the orifice by a support member, the support member including a plurality of strain gauges; and

disposing the plurality of strain gauges on only one side of the support member, the plurality of strain gauges being mechanically stressed in response to the paddle being displaced by the medium flow.